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# Fourth Contribution to the Herpetology of San Luis Potosí 

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Abstract.-A report is made on a collection of reptiles and amphibians, containing approximately 608 specimens from San Luis Potosí, property of Louisiana State University Museum of Natural History. The collection contains a total of 71 species distributed as follows: one salamander, seventeen species of Salientia, twenty-one species of lizards, thirty-one species and subspecies of serpents, and one crocodile. The following are new records for the State: Bufo occidentalis Camerano (previously reported as Bufo simus [erroneously]); Hemidactylus turcicus turcicus (Linnaeus); Sceloporus dugesi intermedius Dugès; Ophisaurus sp.; Abronia taeniata (Wiegmann); Rhinocheilus lecontei tessellatus Garman; and Crocodylus moreleti Duméril and Bibron. Two other species, Sceloporus serrifer cariniceps Martin, and Leiolopisma caudaequina (Smith) have not appeared in the author's previous lists.

Elaphe triaspis intermedia (Boettger) was formerly reported erroneously as Elaphe chlorosoma (Günther). Thamnophis cyrtopsis crytopsis was formerly reported erronously as Thammophis eques eques (Reuss). Thamnophis eques eques (Reuss) was formerly reported as Thamnophis subcarinata subcarinata Gray.

## INTRODUCTION

Three recent herpetological collections, made for the Louisiana State Museum of Natural History and submitted to me for identification and study by Dr. George Lowery, form the basis for this publication.* These collections were made by personnel from the museum:

Mr. and Mrs. Richard Graber spent nearly a year in San Luis Potosí and visited several isolated mountain ranges from which no previous herpetological collections have been reported. Their chief interest was ornithology.

[^0]Mr. Richard T. Gregg was in the country pursuing limnological studies in the summer of 1951 and obtained more than a hundred herpetological specimens.

The third collection was made by Mr. Charles Fugler, largely in 1952, while engaged in ornithological collecting.
A total of 608 specimens $\dagger$ is included in the material sent. When one realizes that the primary interests of the collectors were in other fields, and the herpetological specimens merely the result of chance collecting, the number is indeed large.

The materials have proved especially interesting and the number of species and subspecies represented-seventy-is especially high. A number of forms are reported from the State for the first time.

The following species are treated in this paper:
Caudata
Ambystoma velasci Dugès
Salientia
Scaphiopus couchii Baird
Scaphiopus multiplicatus Cope
**Bufo occidentalis Camerano
Bufo valliceps Wiegmann
Bufo horribilis Wiegmann
Bufo punctatus Baird and Girard
Leptodactylus labialis (Cope)
Syrrhophus cystignathoides (Cope)
Tomodactylus macrotympanum Taylor
Smilisca baudinii (Duméril and Bibron)
Acrodytes spilomma (Cope)
Hyla arenicolor Cope
Hyla eximia Baird
Hyla miotympanum Cope
Rana pipiens Schreber
Rana montezumae Baird
Sauria
Hemidactylus turcicus turcicus (Linnaeus)
Anolis sallaei Günther
Phrynosoma orbiculare orbiculare (Linnaeus)
Holbrookia maculata approximans Baird
Sceloporus parvus parvus Smith
Sceloporus grammicus disparilis Stejneger
Sceloporus spinosus spinosus Wiegmann
Sceloporus variabilis variabilis Wiegmann
Sceloporus jarrovi minor Cope
*Sceloporus dugesii intermedius Dugès

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***Sceloporus serrifer cariniceps Martin
    Sceloporus torquatus melanogaster Cope
    Eumeces lynxe lynxe Wiegmann
***Leiolopisma caudaequinae (Smith)
    Ameiva undulata podarga Smith and Laufe
    Cnemidophorus sacki gularis Baird and Girard
    *Ophisaurus sp.
        Gerrhonotus liocephalus infernalis Baird
    Gerrhonotus liocephalus loweryi Tihen
    *Abronia taeniata taeniata (Wiegmann)
        Barisia imbricata ciliaris (Smith)
                    Serpentes
    Leptotyphlops myopicus myopicus (Garman)
    Constrictor constrictor imperator (Daudin)
    Ficimia streckeri Taylor
    Geophis mutitorques Cope
    Lampropeltis triangulum polyzona Cope
    Rhadinaea crassa Smith
    *Rhinocheilus lecontei tessellatus Garman
    Salvadora lineata Schmidt
**Elaphe triaspis intermedia (Boettger)
    Elaphe flavirufa flavirufa (Cope)
    Masticophis flagellum testaceus (Say)
    Masticophis taeniatus ruthveni Ortenburger
    Pituophis catenifer affinis Hallowell
    Pituophis deppei jani (Cope)
    Drymarchon corais erebennus (Cope)
    Dryadophis melanolomus veraecrucis (Stuart)
    Spilotes pullatus mexicanus (Laurenti)
    Thalerophis mexicanus mexicanus (Duméril, Bibron, and Duméril)
**Thamnophis cyrtopsis cyrtopsis (Kennicott)
**Thamnophis eques eques (Reuss)
    Thamnophis melanogaster canescens Smith
    Thamnophis phenax Cope
**Thamnophis halophilus Taylor
    Thamnophis sirfalis proximus (Say)
    Leptodeira annulata septentrionalis (Kennicott)
    Leptodeira annulata taylori Smith
    Leptodeira maculata (Hallowell)
    Coniophanes imperialis imperialis (Kennicott)
    Coniophanes fissidens proterops Cope
    Crotalus triseriatus triseriatus (Wagler)
    Crotalus atrox Baird and Girard
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                    Loricata
    Crocodylus moreletii Duméril and Bibron

[^2]
# REPORT ON SPECIMENS 

## Caudata

A single salamander is present in the collection.

## Ambystoma velasci Dugès

Amblystoma velasci Dugès, La Naturaleza, ser. 2, vol. 1, 1888, p. 142 (type locality, Laguna Santa Isabel, near Guadalupe Hidalgo, D. F. Mexico).
One specimen, No. 4294, was taken at Presa Gonzales Santos, San Luis Potosí. The specimen is somewhat hardened so that accurate comparison with other forms is somewhat difficult. I have referred the species to velasci with some hesitation. The specimen is black with a pair of small yellow spots on the beginning of the neck and another pair near the angles of the mouth. The sides of the neck and body together have six to eight small canary-yellow spots, irregularly placed. The tail is strongly compressed with a series of five or six spots on each side on the upper part of the tail and a few scattered spots about tail-base. Some indistinct light flecks are present on the limbs. The venter is blackish with whitish or yellowish markings, the underside of the limbs dark The vomerine teeth are in two, somewhat diagonal series meeting mesially and anterior to the level of the choanae, forming a broad chevron. About 25 teeth are present on the left side, and 22 on the right, where there is a short hiatus near the choana. The tongue is well developed. The phalangeal formula is: $2,2,3,2,2,2,3,4,2$. The webbing on the hand does not extend to the ends of the metacarpals. On the foot the webbing extends slightly beyond the metacarpals and on each digit continues as a diminishing fringe to near the end of the digits. Snout to front of vent, 70 mm .; tail, 54 mm .; basal depth of tail, 8 mm .; arm, 25 mm .; leg, 27 mm .

## Salientia

The collection of Salientia contains 239 specimens, and 16 species.

## Scaphiopus couchii Baird

Scaphiopus couchii Baird, Proc. Acad. Nat. Sci. Philadelphia, vol. 7, 1854, p. 62 (type locality, Matamoros, Tamaulipas [restricted]).

The following specimens are in the collection: Nos. 5464, 5465 from Ebano; No. 4980 , from 12 mi . W of Ebano, 100 ft . elev.; No. 4289 , from 11 mi . W of Ébano; Nos. 4298, 4299, recently transformed specimens, that seemingly belong to this species.

## Scaphiopus multiplicatus Cope

S(caphiopus) multiplicatus Cope, Proc. Acad. Nat. Sci. Philadelphia, vol. 15, 1863, p. 52 (type locality, Coyoacán, D. F. Mexico, [restricted]).
A series of the northern variant of this species (Nos. 5458-5463, 5789) was taken at Luna Media.

## Bufo occidentalis Camerano

Bufo occidentalis Camerano, Atti Accad. Sci. Torino, vol. 14, 1879, p. 887 (type locality, Guanajuato, Guanajuato [restricted]).
One adult specimen, No. 4982, from Pozo del Carmen, 6500 ft . elev., is in the collection. The tympanum is distinct.

This species was formerly reported from San Luis Potosí, as Bufo simus.

## Bufo valliceps Wiegmann

Bufo valliceps Wiegmann, Isis von Oken, vol. 26, 1833, pp. 657-659 (type locality, Veracruz, Veracruz, [restricted]).
The following numerous specimens of this species are in the collection: Nos. 4315-4318, 5432-5437, Tamazunchale; 4319-4328, 49904991, 5438-5441, Nacimiento del Coy; 4329-4332, Río Valles, at Valles; 4985-4986, Aqua Sonadora, 4 km . N Tanchachin; 4987, 2 mi. N Valles, 300 ft. elev.; 4988, 5455, Valles, 300 ft.; 4995-4996, 6 mi . W Ahuacatlan; 5442-5450, Ebano; 5414-5431, El Salto; 5457, Río Axtla (ferry on Xilitla Road); 5451, Luna Media; 5456, 38 km . SW Río Verde.

In a previous publication * I noted certain toads that differed from typical valliceps in having a narrower head. A specimen, No. 4996 , from 6 mi . W of Ahuacatlan, likewise differs from the typical valliceps. This specimen is a large male. The head crests are thicker and the dark parotoid gland extends farther, reaching laterally to a level of the middle of the tympanum. The hands and feet are broader and the toes are slightly more webbed. Seemingly a smaller part of the femur is included in body skin. The vocal sacs open on both sides.

## Bufo horribilis Wiegmann

Bufo horribilis Wiegmann, Isis von Oken, vol. 26, 1833, pp. 654-655 (type locality, Veracruz, Veracruz, [restricted]).

Nos. 4333, 4994, and 4998 are from El Nacimiento del Coy, 300 ft. elev.; Nos. 4334-4347, 4350, 4351, 4353, 4356, from Río Valles, at Valles; Nos. 4348, 4352, 4354, 4355, from El Sol Courts, Tamazunchale; No. 4357, from El Salto. Males may usually be distinguished from females by their rougher skin.

[^3]
## Bufo punctatus Baird and Girard

Bufo punctatus Baird and Girard, Proc. Acad. Nat. Sci. Philadelphia, vol. 6, 1852, p. 173 (type locality, Rio San Pedro [now Devil's River], Val Verde Co., Texas).
Six specimens are in the collection: Nos. 4311-4314, from Presa San José, 4 mi . SW of San Luis Potosí; Nos. 4290-4291, from 5 miles SW Bledos, E. Cabrera, coll.; No. 4981, Pozo del Carmen, 5600 ft . elev., J. Graber, coll.; No. 4983, Sierra San Miguel, 7500 ft . elev., R. Graber, the specimen "gray with red-brown warts"; No. 4984, 2 mi. W of Amoles, 5600 ft ., R. Graber, coll.

## Leptodactylus labialis (Cope)

Cystignathus labialis Cope, Proc. Amer. Philos. Soc., vol. 17, 1877, p. 90 (type locality, Potrero Viejo, Veracruz [restricted]).
A small, recently transformed specimen (No. 4961), from El Nacimiento del Coy, 300 ft . elev., collected by Jean Graber, seemingly belongs to this species although too young to make positive identification. The vomerine teeth are well developed. The color is "dark gray with darker markings."

## Syrrhophus cystignathoides (Cope)

Phyllobates cystignathoides Cope, Proc. Amer. Philos. Soc., vol. 17, 1877, pp. 89-90 (type locality Potrero, near Córdoba; Veracruz, Mexico).
Two specimens of this species in the collection are from La Joya, 5 km . W of Aquismon, elev. 2500 ft ., Nov. 22, collected by R. Graber. No. 4962 is "olive with black spots; black band through eye and on side of head." No. 4963 is "gray with darker spots; black on sides of head and around eye."

## Tomodactylus macrotympanum Taylor

T'omodactylus macrotympanum Taylor, Univ. Kansas Sci. Bull., vol. 26, 1939 (1940) pp. 496-499, pl. 55, figs. 2, 2a, 2b, (type locality, La Placita, south of Jacala, Hidalgo, Mexico).
Three specimens, Nos. 4968, 4969, and 4970 were taken at a point 6 miles west of Ahuacatlan, at an elevation of 5200 ft . by R. Graber, July 30 and 31, 1951. "Sits in bushes about three to four feet above the ground." "Gray, almost transparent, with darker spots."

## Smilisca baudinii (Duméril and Bibron)

Hyla baudinii Duméril and Bibron, Erpétologie générale, vol. 8, 1941, pp. 564565 (type locality, Córdoba, Veracruz [restricted]).
Three specimens are in the collection: Nos. 4274, El Nacimiento del Coy, L. Guerrero, collector; Nos. 4300, 4301, El Sol Courts, Tamazunchale, R. T. Gregg, collector.

## Acrodytes spilomma (Cope)

Hyla spilomma Cope, Proc. Amer. Philos. Soc., vol. 17, 1877, p. 86 (type locality, Cosomaloapam, Veracruz, Mexico).
A specimen, No. 5786, is from EI Salto. The spotting on the limbs and sides of the body is typically nigropunctate.

## Hyla arenicolor Cope

Hyla arenicolor Cope, Jour. Acad. Nat. Sci. Philadelphia, ser. 2, vol. 6, 1866, p. 84 (substitute name for Hyla affinis Baird preoccupied; type locality, Santa Rita Mts. [restricted]).

The northeastern specimens are on the whole smaller than specimens from the southern part of the range. Nos. 4966, 4967 are from 12 mi . E of Santiago, 8200 ft . elev., taken Sept. 24, 1951; Nos. 4974, 4975 are from Sierra San Miguel, 7500 ft . elev., taken Oct. 20, 1951; and No. 5785 is from 38 km . SW of Río Verde de los Piños.

## Hyla eximia Baird

Hyla eximia Baird, Proc. Acad. Nat. Sci. Philadelphia, vol. 7, 1854, p. 61 (type locality, Coyoacán, Distrito Federal, Mexico [restricted]).
Four specimens in the collection are from the following localities: No. 4964 , Bledos, 6200 ft. elev.; Nos. $4965,4971,4972$, are from 10 mi . E Pozo del Carmen, 6500 ft . elev. The adults are typical.

## Hyla miotympanum Cope

Hyla miotympanum Cope, Proc. Acad. Nat. Sci. Philadelphia, vol. 15, 1863, p. 49 (type locality, Jalapa, Veracruz [restricted]).

Two specimens, Nos. 5780,5781 from Xilitla, are in the collection.

## Rana pipiens Schreber

Rana pipiens Schreber, Der Naturforscher, Halle, vol. 18, 1872, p. 185, pl. 4 ( Raccoon, Gloucester Co., N. J.).
The following specimens are in the collection: Nos. 4278-4284, Bledos; Nos. 4286, 5 mi . SW Bledos; No. 4288, El Nacimiento del Coy; No. 4960, Agua Sonadoro; No. 4976, Villa Reyes, Laguna de la Rusias; Nos. 4977-4979, Pozo del Carmen, 5600 ft . elev. No attempt is made to determine the subspecific relationship of these specimens.

## Rana montezumae Baird

Rana montezumae Baird, Proc. Acad. Nat. Sci. Philadelphia, vol. 7, 1854, p. 61 (type locality, México, Distrito Federal, Mexico).
The following specimens are in the collection: Nos. 4302-4306, Presa Gonzales Santos, 10 mi . SW San Luis Potosí; 4307-4310, 4390, Presa San José, 4 mi. SW San Luis Potosí; 4275-4277, Bledos; 4285,

4287, 5 mi. SW Bledos in pools in mountain canyon, 7000 ft . elev.; 4973, Sierra San Miguel, 7500 ft.; 5654, Laguna de las Rusias; 5668, 5699-5671 Presa Prudentia.

## Sauria

The lizard collection contains considerably more than three hundred specimens, but all are not recorded here since certain ones are being studied by Dr. Hobart M. Smith. His report will appear elsewhere. There are 21 species represented here.

## Hemidactylus turcicus turcicus (Linnaeus)

Lacerta turcicus Linnaeus, Systema Naturae, ed. 10, 1758, p. 202 (type locality, Cairo, Egypt [restricted]).
The presence of this species in the State is attested by a series of specimens from Tamazunchale, collected by Fugler (Nos. 5798-5806). They were captured in the El Sol Courts and suggest a recent introduction possib'y by tourists. Previous collecting in Tamazunchale has yielded no specimens. Specimens were previously known from 12 mi . E of Llera in Tamaulipas. These are the first records for San Luis Potosí.

## Anolis sallaci Günther

Anolis sallaci Günther, Proc. Zool. Soc. London, 1859, p. 421 (type locality, Jalapa, Veracruz, Mexico [restricted]).
This species was formerly reported from the State under the name Anolis sericeus (Hallowell) which I now believe refers to a different species.* The present collection contains two specimens, Nos. 4209 and 5806, from Nacimiento del Coy. The latter is a female, having a white throat, which bears a purplish-red spot. The body is generally gray and lacks the broad, dorsal, cream stripe that is present in the type (also a female).

## Phrynosoma orbiculare orbiculare (Linnaeus)

(Plate CXVIII)
Lacerta orbicularis Linnaeus, Systema Naturae, ed. 12, 1789, p. 1062 (part.) (type locality, México, D. F. Mexico [restricted]).
A specimen, No. 4944, was taken on the Sierra San Miguel, at an elevation of 7200 ft ., Oct. 21, 1951, by R. Graber. The color is: "Dorsally brown with dark brown and cream colored markings; spines olive green; occipital spines pink. Ventrally blotched with blue-gray; legs yellowish."

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Plate CXVIII. Phrynosoma orbiculare orbiculare L.S.U. No. 4944. Sierra San Miguel, S.L.P.

## Holbrookia maculata approximans Baird

Holbrookia approximans Baird, Proc. Acad. Nat. Sci. Philadelphia, 1858, p. 253 type locality, Tamaulipas, Tamaulipas, Mexico [restricted]).
A mutilated female specimen, No. 5796, from Presa Gonzales Santos, is referred to this species.

## Sceloporus parvus parvus Smith

Sceloporus parvus Smith, Trans. Kansas Acad. Sci., vol. 37, 1934, pp. 263-267, pl. 8, figs. 1, 3, pl. 10, fig. 10 (type locality, 5 mi . W Sabinas Hidalgo, Nuevo León, Mexico).

Six specimens are referred to the typical subspecies: Nos. 4924, ? mi. W Amoles; 4925, 4926, Sierra San Miguel, $7500-8000 \mathrm{ft}$. elev.; 4927, 12 mi . SE Santiago, 8000 ft .; 5628, 5629, approximately 1 mi . W Ciudad del Maiz.

These specimens have 14 or 15 femoral pores on each side, the series separated mesially by four scales. The scales in a dorsal row from the occipital to above vent are 63-68 and the enlarged dorsal scale rows on neck are 17 or 18 . Since the specimens are discolored by formalin, the dorsolateral light line is scarcely distinguishable. The chin has light spots on a blackish ground color.

An area under the thighs in the anal region and under the tail is whitish and without pigment. In younger specimens the tail is white to the tip on the under side while the dorsal and lateral coloring of the tail is gray, much lighter than the dorsal body color.

## Sceloporus grammicus disparilis Stejneger

Sceloporus disparilis Stejneger, Proc. Biol. Soc. Washington, vol. 29, 1916, pp. 227-230 (type locality, Lomita Ranch 6 mi . N Hidalgo, Texas).
A considerable series of this species is present in the collection. The following localities are represented: Nos. 4248-4254, Cerro Conejo; 4242, Cañada Grande; 4227, Bledos; 4912, 4915-4916, 6 mi . W Ahuacatlan, 5400-6500 ft. elev.; 4917, 4918, 4920-4922, Sierra Azul, 10 mi . NE Bledos, 900 ft . elev.

## Sceloportus spinosus spinosus Wiegmann

Sceloporus spinosus Wiegmann, Isis von Oken, vol. 21, 1828, p. 370 (type locality, Puebla, Puebla [restricted]).
The following specimens are in the collection: Nos. 4260-4262, 4365, 4934, 4935, Laguna de las Rusias; 4237-4240, Bledos; 4241, 5 mi. SW Bledos; 4242, Cañada Grande; 4936, 10 mi. E of Pozo del Carmen; 4937, 3.5 mi . W Pozo del Carmen; 4272 (young), Villar; 5490-5499, 5539, 5794, Presa Prudentia; 5500-5511, 5529, 5532-5537, Luna Media; 5516-5521, 5523-5528, 5530, 5531, 5540, Presa Gonzales

Santos; 5515, 1½ mi. W Leoncito; 5522, Presa San José; 5512-5514, 5538-5539, Ciudad del Maiz.

## Sceloporus variabilis variabilis Wiegmann

Sceloporus variabilis Wiegmann, Herpetologia Mexicana, 1834, p. 51 (type locality, Veracruz, Veracruz, Mexico [restricted]).
The following specimens are in the collection: Nos. 4236, Axtla; 4271, 2 mi. W Tamuin; 4257-4259, 5563-5573, 5600-5612, El Salto; 4267-426S, Platanito; 4931-4933, 3 mi . W Platanito, 4000 to 4600 ft . elev.; 4269, Puente de Dios; 4264, 5590, Tamazunchale; 4243, 4244, 4246, Cañada Grande; 4256, 101 $\frac{1}{2} \mathrm{mi}$. W Ebano; 4263-4266, 4361-$4363,4928-4930,5574-5585,5616-5619$, Nacimiento del Coy; 55535562, 5587, 5596-5599, 3 mi . W Xilitla; 5588, 5589, 5613-5615, Luna Media; 5591, 5620-5625, Valles; 5590, 5626, 5627, Cerro de la Paz; 5586, 5587, 5592-5595, approx. 24 mi . SW Río Verde, Los Piños.

## Sceloporus jarrovi minor Cope

Sceloporus torquatus minor Cope, Proc. Amer. Philos. Soc., vol. 22, 1885, p. 402 (type locality, Valparaiso Mts. Zacatecas, Mexico [restricted]).
Specimens Nos. 4366, 4905, 4919, 4923 were collected 10 miles northeast of Bledos in the Sierra Azul, 9000 ft. elev.; No. 4366 at Presa San José, 4 mi. SW of San Luis Potosí.

## Sceloporus dugesii intermedius Dugès

Sceloporus intermedius Dugès, La Naturaleza, vol. 4, 1877, pp. 29-34, pl. 1, figs. 21-32 (type locality, La Noria, near Zamora, hda. P. Epifanio Jiménez in Michoacán).
A series of specimens taken in southern San Luis Potosí is referred to the above species. These are: Nos. 4232, 4908, 4911, 4913, 4914, 6 mi . W Ahuacatlan, 5400 ft . elev.; 4906, Sierra Azul, $10 \mathrm{mi} . \mathrm{N}$ Bledos, 9000 ft . elev.

The latter specimen, a male, has a white chin, throat, and venter; the underside of the tail is a shade of orange.

## Sceloporus serrifer cariniceps Martin

Sceloporus serrifer cariniceps Martin, Occ. Pap. Mus. Zool. Univ. Michigan, no. 543, Oct. 22, 1952, pp. 1-7 (type locality, Rancho Pano Ayuctle, along Río Sabanas, 5 mi . NE of Gomez Farias, Tamaulipas, Mexico.
No. 5550, from 6 km . E of Tamazunchale, is a typical example of this recently described species. It has been reported previously from Ebano.

## Sceloporus torquatus melanogaster Cope

Sceloporus torquatus melanogaster Cope, Proc. Amer. Philos. Soc., vol. 22, 1885, pp. 400-401 (type locality, Tupátaro, Guanajuato [restricted]).
The species is represented by Nos. 4231, 4234 from 6 mi . W Ahuacatlan; 5541, 5548, Presa Prudentia; 5549, Presa San José.

## Eumeces lynxe lynxe Wiegmann

Eumeces lynxe Wiegmann, Herpetologia Mexicana, 1834, pp. 36-37 (type locality El Chico, Hidalgo).

The following specimens are in the collection: Nos. 4210, 4211, 4213 , Cerro Conejo at an elevation of 7000 ft .; No. 4212, Cañada Grande; No. 4942, 6 mi. W Ahuacatlan, 5400 ft. elev.; J. Graber coll. This latter specimen has "yellow stripe on dorsum, the back bronze; throat somewhat orange in color; sides black; tail bright blue; belly bluish gray."

## Leiolopisma caudaequinae (Smith)

Scincella caudaequina Smith, in Smith and Taylor, U. S. Nat. Mus. Bull. 199, 1950, p. 158 (type locality, Salto Cola de Caballo, $25 \mathrm{mi} . \mathrm{S}$ of Mònterrey, Nuevo León, Mexico ).*
Leiolopisma candaequinae Smith, Univ. Kansas Sci. Bull., vol. 34, pt. 1, Oct. 1, 1951, pp. 195-200 (complete description).

Four specimens are in the collection: Nos. 4940 and 4941 from La Joya, 3.1 mi . W of Aquismon, 2500 ft . elev.; No. 4943 , from 4 mi . W of Pendencia, 4600 ft . elev.; No. 5793, 3 mi . W of Xilitla.

The scale rows around the middle of the body are respectively, $28,30,28,30$; the lamellae under the fourth toe are, 18, 19, 19, 19. The last specimen is a female, distended with eggs, in which the limbs touch but do not overlap. There are 69 dorsal scales in a row from parietals to above vent. This species has been taken previously in the State from Naranjo.

## Ameiva undulata podarga Smith and Laufe

Ameiva undulata nodarga Smith and Laufe, Univ. of Kansas Sci. Bull., vol. 31, pt. 1, May 1, 1946, pp. 40-43, figs. 1d, 2a (type locality, 7 mi . W Victoria, Tamaulipas).
The following are in the collection: Nos. 4218, Puente de Dios, Río Santa Maria; $4228,5700,5701,5769$, and 3 unnumbered specimens, El Salto; 4358, 5714, 5715, 5746, 5764, 5765, Tamazunchale; 5768 , Río Elera, 3.7 mi. E Tamazunchale; 5717, Nacimiento del Coy.

## Cnemidophorus sacki gularis Baird and Girard

Cnemidophorus gularis Baird and Girard, Proc. Acad. Nat. Sci. Philadelphia, 1852, p. 128 (type locality, mouth of Devil's River, Texas [restricted]).
Nos. 4945-4947, Pozo del Carmen, 5600 ft. elev.; 4948-4950, from 2 mi . W of Valles, 300 ft . elev.; 5693, 5694, 5719-5722, 5750-5758, Luna Media; 5695, 5696, 5702-5704, 5723-5725, 5761, 5772, Ciudad del Maiz; 5726-5731, 5760, and four unnumbered specimens El Salto;

[^5]5742-5744, 5774, 5775, Presa Prudentia; 5723, 5748, 5749, Valles; 5705-5708, 5732-5738, 5766, 5767, 23.75 mi . SE Río Verde (Los Piños); 5712, 5713, Presa San José; 5697-5699, 5763, Laguna de las Rusias; 5709-5711, and 2 specimens without numbers, Presa Gonzales Santos; 5747, 5771 Cerro de la Paz; 5718, 5739, 5740, 5745, 5762, one-half mi. W of Leoncito.

## Ophisaurus sp.

A single specimen, No. 4886 万 , captured seven miles south of Valles, San Luis Potosí by C. O. Peterson, Nov. 15, 1951, represents the first record for the State and one of two for Mexico. The nearest point in the United States where the genus is known to occur is Cameron and Hidalgo Counties in extreme southern Texas.

It was reported from Jalapa by Yarrow,* a record that Smith and Taylor ** believe to be incorrect. However, the finding of a specimen near Valles proves the presence of the genus in Mexico.

Diagnosis: Ground color gray, with a series of black marks forming lines on each scale-row above the lateral groove, the lines varying in width, the widest and most complete being that of the fourth from the groove, which is not wider than one half scale-row; no pigmentation below groove, but a faint peppering on edges of groove; venter pure white; ten ventral scale-rows; 14 rows between the grooves; the scales around neck behind ear, 34; scales between end of groove and ear, 17; upper labials, 12-12.

Description of species: Rostral wider than high, bordered by four internasal scales lying between the first labials, the median scale rather unequally divided; nasal small, divided, the posterior section very narrow, scarcely more than a partial rim around nostril; a well-defined supranasal; a pair of posterior internasals broadly in contact, touching the upper postnasal and the supranasal laterally; frontonasal large, more or less rounded in front, with nearly parallel sides; posterior border curving from each side to a short mesial point, barely separated from a large frontal by a rather large pair of prefrontals; frontal bordered by three of the five inner supraoculars; five small outer supraoculars; six small superciliaries; interparietal broadly in contact with the frontal, pentagonal, but generally triangular in shape, narrowing posteriorly to a point, in contact with the interoccipital; a pair of parietals border the interparietal, but are separated by three scales from the supraoculars,

[^6]and touch three lateral, temporal scales; upper labials, 11-11; lower labials approximately nine; at least niine scales in the presub- and postocular series. One postnasal, two or three canthals; loreals? * a single postmental, separated from mental by inner submentals; three large paired chinshields; an inner and an outer row of submentals.

Ear small, separated from the last labial by three scales, from the beginning of the lateral groove, by 15 scales; scales in a dorsal row from parietal to above vent, 114-116; 14 dorsal scale rows, the outer, bordering lateral groove, more than half size of adjoining row; ten ventral scales, bordering lateral groove more than half size of adjoining rows; vent bordered by at least $11^{\circ}$ scales only slightly differentiated; scales on venter, from last enlarged paired postmental to preanals, 119.

Measurements: Width of head, 15 mm .; head length to ear, 23 mm .; snout to vent, 231 mm . (tail broken and regeneration begun).

Colors: Above and on sides as far as the lateral groove, grayish to grayish white, each scale of a given row with equal-sized darker areas which together form rows of dots or discontinuous lines; the two median lines darker and more nearly continuous than adjoining rows; on each side of these two rows, are two rows of grayish-black dots; the next row on each side is the darkest and practically continuous; width of the black equaling more than half width of scale-row, while borders of this and succeeding rows whiter than those dorsally; next two rows broad but discontinuous, while the outermost bordering lateral groove is smallest, the individual dots most widely separated; just posterior to level of vent third and fourth rows of each side unite to form only a single strong stripe on each side; labials and temporals with black spots; a black spot on interoccipital, and a few small blackish flecks elsewhere on head. Below lateral groove, belly uniform, dull white.

Remarks: The genus Ophisaurus has recently been re-examined by Mr. Edward McKonkey who has a paper in press dealing with the genus at this writing. He suggests that I refer to this specimen as I have done, until his paper appears.

## Gerrhonotus liocephalus infernalis Baird

Gerrhonotus infernalis Baird, Proc. Acad. Nat. Sci. Philadelphia, 1858, p. 255 (type locality, Devil's River, Texas).
One specimen of this species, No. 4958, was acquired at Birmania, 3 mi . S of Valles, 300 ft . elev., by C. A. Peterson, November 10, 1951.

[^7]The specimen has the following characters: snout to vent, 137 $\mathrm{mm} .$, tail, 291 mm ., partly regenerated; total length, $428 \mathrm{~mm} . ;$ adpressed limbs separated by $10-11$ scales; four scales bordering rostral across snout between first labials; a distinct axillary pit, the lateral nuchal pit being almost obsolete; nine transverse markings of tan, dark brown and whitish; white mark from eye to ear bordered by black above; dark marks crossing the fine scales of the lateral groove'. This specimen differs from the typical infernalis in having two labials and four other scales bordering the rostral, and the number of scale rows approaches the number in loweryi.

## Gerrhonotus liocephalus loweryi Tihen

Gerrhonotus liocephalus loweryi Tihen, Trans. Kansas Acad. Sci., vol. 51, 1948, pp. 302-305 (type locality, Xilitla, San Luis Potosí).
A series of five specimens, Nos. 4953-4957, are from six miles W Ahuacatlán, elevation approx. 5400 ft ., Oct. 4 to 6, 1951, R. Graber, collector. The median body scale-counts are, 53, 55, 52, 54, 53 respectively. There are three scales bordering rostral across snout between the first labials. No. 4954 has a snout-vent length of 192 mm ., the tail, 338 mm . The caudal scales of this specimen number 161. The head is widened in the males. The legs when adpressed are separated by $2-3$ scales in males; by $4-4 \frac{1}{2}$ in females.

## Abronia taeniata taeniata (Wiegmann)

## (Plate CXIX)

Gerrhonotus taeniatus Wiegmann, Isis von Oken, vol. 21, 1828, p. 379 (type locality El Chico, Hidalgo [restricted]).
A single specimen, No. 4208, is from Llano Conejo on Cerro Conejo, collected by E. Esquibel. The specimen is somewhat discolored but when compared with the Wiegmannian figure of the type * it agrees very well. However, this specimen has somewhat less light marking on the head and labials. This is a new record for San Luis Potosí.

## Barisia imbricata ciliaris (Smith)

Gerrhonotus levicollis ciliaris Smith, Proc. U. S. Nat. Mus., vol. 92, 1942, pp. 365-367 (type locality, Sierra Guadelupe, Coahuila, Mexico).
One specimen, No. 4207, 7000 feet, Cerro Conejo, measures 138 mm . snout to vent. The tail is regenerated. The color of the preserved specimen is nearly uniform olive above without markings, the head, especially the sides of head, somewhat lighter.

Two specimens, Nos. 4951, 4952, are from 10 mi . NE of Bledos

[^8]

Plate CXIX. Abronia taeniata taeniata L. S. U. No. 4208 Cerro Conejo S. L. P.
in the Sierra Azul, 9000 ft . elev., collectors, Jean Graber and R. Graber. The former is "dorsally brown-olive drab, ventrally pale orange; especially orange on under side of tail." The latter specimen is "olive-drab dorsally; whitish green ventrally except for tail, which is orange on under surface."

These two specimens differ somewhat from the Cerro Conejo specimen. The heads are larger, the bodies shorter. No. 4207 has the adpressed limbs separated by ten scales, the other two by five scales.

## Serpentes

The collection contains 68 specimens of snakes. For the size of the collection, the number of species is large, no less than 31 species and subspecies being represented. Three are the first records for the State.

## Leptotyphlops myopicus myopicus (Garman)

Stenostoma myopicum Garman, Mem. Mus. Comp. Zool., vol. 8, 188.3, pp. 6, 130, 131 (type locality, Savinetó, near Tampico, Tamaulipas, Mexico).
Three specimens of this species are in the collection: Nos. 5411, Nacimiento del Coy; 5412, Cerro de la Paz; 5413, Luna Media, Fugler collector.

## Constrictor constrictor imperator (Daudin)

Boa imperator Daudin, Histoire Naturelle . . . reptiles, vol. 5, 1803, pp. 150-152 (type locality, Córdoba, Veracruz, Mexico [restricted]).
A skin containing a complete head (No. 4871) is from near Corrones, 15 mi . W of Ebano, altitude 100 ft ., R. Graber, collector.

## Ficimia streckeri Taylor

Ficimia streckeri Taylor, Copeia, 1931, no. 1, pp. 5-7 (type locality, 3 mi. E Rio Grande City, Texas).
A single specimen (No. 5391) is from 3 mi . W of Xilitla.

> Geophis mutitorques * Cope

Geophis mutitorques Cope, Proc. Amer. Philos. Soc., vol. 22, 1885, p. 384 (type locality, Zacualtipan, Hidalgo, Mexieo).
A small specimen, No. 4202, from Cerro Conejo ( 7700 ft .), is in the collection. It is black above, while below it is black with more or less quadrangular white spots, alternating or more rarely fused. There is a nuchal collar, almost interrupted medially, widening laterally and connecting with the large whitish area on chin.

[^9]
## Lampropeltis triangulum polyzona Cope

Lampropeltis polyzona Cope, Proc. Acad. Nat. Sci. Philadelphia, vol. 12, 1860, p. 258, (type locality, Cuatupe, near Jalapa, Veracruz).

Two specimens, No. 4370, $\circ$, from El Sol Courts at Tamazunchale, and No. 4203 , of from 11.2 km . S of Valles, are in the collection. The black-white-black bands, 18 or 19 in number, are not or scarcely wider dorsally than laterally in No. 4203, while in the smaller (No. 4370), the bands are distinctly wider dorsally than laterally. The lengths of the two specimens are respectively, 339 mm . and 687 mm ., tails, 48 mm ., 88 mm .

## Rhadinaea crassa Smith

Rhadinaea crassa Smith, Proc. Biol. Soc. Washington, vol. 55, 1942, pp. 190191, figs. 4-5 (type locality, Durango, Hidalgo).
A specimen (No. 4206, R. Graber, collector), typical in practically all details, is from Cerro Conejo.

## Rhinocheilus lecontei tessellatus Garman

Rhinocheilus lecontei tessellatus Garman, Mem. Mus. Comp. Zool., vol. 8, 1883, p. 74, 159 (type locality, Monclova, Coahuila, Mexico).
The first State record for this species is No. 4875 , from 3.5 mi . W of Pozo del Carmen, 5600 ft . elev. - the collector, Emilio Esquibel.

The following characters obtain: snout turned up and elevated above other snout scales; internasals angular, nearly three fourths the size of prefrontals; part of rostral seen from above, equal in area to an internasal; one preocular, two postoculars; upper labials, 8 -8; lower labials, $8-9$; temporals, $2+3$; first pair of chinshields longer and wider than posterior pair (on one side the second right chinshield is broken transversely); second pair of chinshields separated by two scales anteriorly, by four scales posteriorly; ventrals, 19412; anal single; subcaudals, $49+1$ (1st divided; 2nd to 43rd single, 44th divided, 45th single, 46th to 49th divided, last terminal scale single ); scale formula: $23,23,23,19,19$; scales with a single apical pit. Total length, 769 mm .; tail, 92 mm . Above, black, red and yellow; 25 broad, black, dorsal blotches, separated by rosy red; 9 black spots on tail separated by rosy red; ventral surfaces pale yellow; every third or fourth ventral with black spots on outer edges.

## Salvadora lineata Schmidt

Salvadora lineata Schmidt, Publ. Field Mus. Nat. Hist., Zool. Ser., vol. 24, 1940, pp. 148-150, fig. 15 (type locality Kingsville, Kleburg County, Texas).
Two specimens are in the collection (No. 4197, Ventilla, May 16, 1951, and No. 4880, 12 mi. SE of Santiago, Sept. 24, 1951, R. Graber,
collector). The former has 194 ventrals and 88 subcaudals; the latter has 192 ventrals; the tip of the tail is missing; the scale formula of the latter is: $19(20), 17,17,13(15)$. The color is: "Ventrally pale yellow-white; dorsally, median stripe yellow; lateral stripes brown; sides gray-brown." The total length is 841 mm ., the tail, 217 mm .

A third specimen, No. 5390 , is from 1.5 mi . W Ciudad del Maiz.

## Elaphe triaspis intermedia (Boettger)*

Pityophis intermedius Boettger, Ber. Offenbacher Ver. f. Naturk. Bd. 22, 1883, pp. 147-152 (type locality, Mexico).
Coluber chlorosoma Günther, Biologia Centrali-Americana, Reptilia and Batrachia, 1894, pp. 115-116, pl. 41 (type locality San Ramón, Jalisco [restricted]).
A specimen, No. 5387 from 3 mi . W of Xilitla was taken June 18, 1952.

## Elaphe flavirufa flavirufa (Cope)

Coluher flavirufus Cope, Proc. Acad. Nat. Sci. Philadelphia, vol. 18, 1866
(1867) p. 319 (type locality, Campeche, Campeche, Mexico [restricted]).

A specimen, No. 4874, from Rancho Sabanal, collected by Jean Graber, Nov. 12, 1951, has the following characters: one very large preocular, reaching frontal; two postoculars; temporals, $3+4$; upper labials, 9-9; lower labials, 12-13; ventrals, 253; subcaudals, $109+1$; scale formula: $25,27,29,23,19$. "Tan above with redbrown, black-edged spots." Head scales more or less outlined in black. A second specimen, No. 5381, is larger than the preceding and darker. It was taken at Nacimiento del Coy.

## Masticophis flagellum testaceus (Say)

Coluber testaceus Say, in Long's Expedition to the Rocky Mountains, vol. 2, 1823, p. 48 (type locality, Pueblo, Pueblo County, Colorado [restricted]).

Two specimens, one a young, road-killed specimen, No. 5797, from Cerro de la Paz and a larger specimen (road-killed), No. 5393, from 15 mi . W of Ebano, are referred to this species.

## Masticophis taeniatus ruthveni Ortenburger

Masticophis ruthveni Ortenburger, Occ. Papers, Mus. Zool. Univ. Michigan, No. 139, 1923, pp. 3-8, pls. 1-3, (part) (type locality, Brownsville, Texas).
In specimen No. 4204, from Bledos, San Luis Potosí, J. Graber, collector, there are seven upper labials, seemingly the second representing a fusion of the normal second and third. There are two preoculars, two postoculars, and eight lower labials present. The

[^10]anterior part of the preocular is partially divided. The scale formula is, $15,15,15$ (14), 13 ; the ventrals, 199; the subcaudals, $137+1$; and the anal divided. The specimen has a total length of 1300 mm ., the tail, 290 mm .

A second specimen, No. 5396 from 38 km . southwest of Río Verde, shows the dorsal scales with white edges throughout the anterior half of the body. The outer fourth of each ventral is actually lateral and colored like the sides but it is separated from the other lateral color by narrow white dashes, distinct and forming a white line on the anterior fourth of the body but becoming obsolescent or obsolete more posteriorly. The ventral area of the ventrals is heavily peppered with gray pigment. The ventrals are 199, the subcaudals, $99+1$, the anal divided.

## Pituophis catenifer affinis Hallowell

Pityophis affinis Hallowell, Proc. Acad. Nat. Sci. Philadelphia, 1852, p. 181 (type locality [restricted] Zuni, New Mexico).
One specimen (No. 4369, \%, 6 mi . E of El Huisacha), is present in the collection. The head is rather reddish tan without markings. The dark blotches are not of solid color and the intervening lighter spaces have almost every scale marked with black. Posteriorly on body the darker markings become brown while the intervening scales are lighter brown. On the extreme posterior part of the body and tail the blotches are brownish red, the scales flecked with black while the intervening scales are immaculate with a slight pinkish edging. There are 23 dark blotches on body and ten on tail.

Some short discontinuous lines are more or less evident on the scales of the anterior part of the body. The ventrals number 235, the subcaudals $56+1$, while the scale formula is, $29,25,22$. The total length is 1800 mm ., the tail, 193 mm .

## Pituophis deppei jani (Cope)

Arizona jani Cope, Proc. Acad. Nat. Sci. Philadelphia, vol. 12. 1860 (1861), p. 369 (type locality, Buena Vista, Coahuila, Mexico).

A specimen (No. 4876 from Amoles, San Luis Potosí, 5600 ft . elev., R. Graber, collector) has the head a light, reddish tan, the anterior half of the body, tan with black spots. The posterior half of the body is gray with red-brown spots. The ventrals are 220 , the subcaudals $59+1$. There are 24 dorsal body blotches, with seven on the tail.

No. 5383, 오, Ciudad del Maiz, has the head light fawn, the light intervening blotches usually less than five scales long. The middle
and terminal dark blotches are reddish brown, those on the posterior parts being edged with black. There are 30 dark body blotches.

No. 5382 , $\delta, 3 \mathrm{mi}$. north of Bledos, has the light anterior bands five scales long or longer, the median dark body spots red-tan becoming black posteriorly. There are 33 body blotches.
No. 5384 is a young specimen from Presa Prudentia. It seemingly agrees with the preceding specimen, save that there are 31 body blotches and certain differences due to youth.

It seems quite probable that there is some intergradation of characters of the two subspecies, deppei deppei and deppei jani since they show characters of both forms as delineated by Stull.*

## Drymarchon corais ercbennus (Cope)

Spilotes erebemuts Cope, Proc. Acad. Nat. Sci. Philadelphia, vol. 12, 1860, p. 342 (type locality, Eagle Pass, Texas).

One specimen, No. 5392, is from Xilitla, collected by Fugler.

## Dryadophis melanolomus veraecrucis (Stuart)

Eudryas boddaerti mexicanus Stuart, Occ. Papers Mus. Zool. Univ. Michigan, no. 254, 1933, pp. 8-9 (type locality, Zacuapan, Veracruz).
Two typical specimens, Nos. 5394 from 3 miles W of Xilitla, and 5395 from El Salto, are in the collection.

## Spilotes pullatus mexicanus (Laurenti)

Spilotes mexicanus Laurenti, Specimen medicum exhibens synopsin reptilium, 1768, p. 83 (Mirador, Veracruz, [restricted]).
A single specimen, No. 4191, is from El Nacimiento del Coy, L. Guerrero, collector. The ventrals are 205, the anal single, the subcaudals $130+1$. There are 8-8 supralabials, 8-9 infralabials with the fifth and seventh labials touching above the sixth. The scale formula is: $18(17), 18,18,12$. The total length is 1900 mm ., the tail, 730 mm .
Thalcrophis mexicanus mexicanus (Duméril, Bibron, and Duméril)
Leptophis mexicamus Duméril, Bibron, and Duméril, vol. 7, pt. 1, 1854, pp. 536537 (type locality, Potrero Viejo, Veracruz, Mexico [restricted]).
A specimen, No. 3200, ס , taken at Nacimiento del Coy, has 166/2 ventrals, the anal divided and the subcaudals, $88+1$. The scale formula is: $15,11,11$, the scales having single terminal pits.

A second specimen, No. 5808, was taken 1 mile W of San Felipe, July 27, 1952.

[^11]
## Thamnophis cyrtopsis cyrtopsis (Kennicott)

Eutaenia cyrtopsis Kennicott, Proc. Acad. Nat. Sci. Philadelphia, vol. 12, 1860, pp. 333-334 (type locality, Rinconada, Coahuila); Smith, Copeia, 1951, No. 2, June 8, p. 138-140.

No. 4376 is from Presa Gonzalo Santos, 10 mi . W of San Luis Potosí, R. T. Gregg, collector, and No. 4878 , is from 4.5 mi . N of Jesús María, 5900 feet elevation, R. Graber, collector. In this latter specimen, the ventrals are 171 , the subcaudals $75+1$. The scale formula is: $22,21,21,19,19$. The coloration of this species is: "Head blue-gray, the median stripe orange-yellow, lateral stripe white. Dorsally olive-drab with yellow spots; gray with black spots ventrolaterally; gray-white ventrally."

This species was formerly recognized under the name Thamnophis eques eques (Reuss).

## Thamnophis eques eques (Reuss)

Coluber eques Reuss, Abh. Senck. Mus., 1834, pp. 152-155, pl. 8, fig. 2 (type locality, El Limón, Totalco, Veracruz [restricted]); Smith, Copeia, 1951, no. 2, June 8, pp. 138-140, pl. 1.
Thamnophis subcarinata subcarinata Smith, Herpetologica, vol. 5, 1949, p. 64 (type locality, Guadalajara, Jalisco).
Thamnophis macrostcmma macrostemma Smith and Taylor, U. S. Nat. Mus. Bull., 187, 1945, p. 163.
The unfortunate mix-up in names used for this species has been the result of a misinterpretation of the identity of the snake described by Reuss. Many authors have confused it with the snake here called Thamnophis cyrtopsis cyrtopsis (Kennicott).

The following specimens are in the collection: Nos. 4196, 4374, 4375, 5403, 5406, Laguna de las Rusias; No. 4870, 4 miles west of Bledos (young); No. 4879, Bledos, 6200 ft . elev.; No. 5408, Presa Prudentia.

The underside of the tail is much lighter than the ventral coloration of belly, having in life a distinctly pink color.

## Thamnophis melanogaster canescens Smith

Thamnophis melanogaster canescens Smith, Zoologica, vol. 27, 1942, pp. 117 120 (type locality, Chapala, Laguna de Chapala, Jalisco, Mexico).
The following specimens are in the collection: Nos. 4377, 5397, 5402, 5404, 5405, Laguna de las Rusias; No. 4378, Presa de San José; No. 4379, Presa Gonzales Santos, 10 mi . SW of San Luis Potosí; No. 4877, Villa de Reyes, Laguna de las Rusias, 6000 ft . elev.; Nos. 5407, 5409, Presa Prudentia.

In No. 4377, $\begin{gathered}\text {, small whitish dots or dashes are evident in rows }\end{gathered}$ on the upper edges of the third and fourth rows of scales. These
may be largely on the skin between the scales, but a portion of the white covers the edge of the scale. On the sixth and seventh rows, small lighter dots are evident when the skin is stretched. The stomach of this specimen contained 12 small fish. The scale-row formula is $23,17,17$. The ventrals are 149 , the subcaudals 61 . The specimen has a total length of 828 mm ., the tail, 144 mm .
Nos. 4378 and 4379 are young. Each has a well-defined light line on the second scale-row. The first scale-row is light with two black spots on each scale. In these the loreal enters the eye below the single preocular.

## Thamnophis phenax Cope

Eutaenia phenax Cope, Proc. Acad. Nat. Sci. Philadelphia, vol. 20, 1868, p. 134 (type locality, Córdoba, Veracruz).
A specimen of this species (No. 4198 万 ), was taken on Cerro Conejo, June 16, 1951. The specimen, while much discolored by formalin, shows clearly the black edges on the 50 dorsal blotches separated by a narrow lighter area one scale-length wide. The ventrals are 163 , the subcaudals $74+1$. There were but 36 blotches in the type of the species.

## Thamnophis sirtalis proximus (Say)

Coluber proximus Say, in Long's Expedition to the Rocky Mountains, vol. 1, 1823, p. 187 (type locality, 3 mi . above mouth of Boyer's River, Washington County, Nebraska).
A specimen, No. 4205, was taken near Valles. The median dorsal stripe is obsolete. The scale rows are $19,19,17$, the ventrals $152 \frac{1}{2}$ and the subcaudals 92 . These counts place the specimen very close to the subspecific form chalccus and a series might demonstrate that the two forms actually intergrade in eastern San Luis Potosí.

## Thamnophis halophilus Taylor

Thamnophis halophilus Taylor, Herpetologica, vol. 1, 1940, pp. 183-187, pl. 19, text fig. 1 (type locality, seven mi. N of Zacualtipan, Hidalgo).
A specimen, No. 4199, from Cerro Conejo, Llano Chico, 7600 ft ., is referred to this species.

A series of lateral spots, and a series of median spots are present. Farther back, at the beginning of the second fourth of the body, are two paired series of spots on each side. Sometimes those of the upper series are contiguous or fused (more frequently not). The skin between spots is white in life. The chin is light and there are light areas on the labials below the eyes. Ventrals number 158, the subcaudals 65 . The scale-row formula is: $23,19,19,19,17$. One
preocular and three postoculars are present. There are 8-8 supralabials, and 9-9 infralabials.

The finding of Thamnophis phenax Cope and Thamnophis halophilus on the Cerro Conejo suggests that these forms do not bear subspecific relationship to each other as is presumed in the SmithTay'or Check'ist of Snakes. Consequently I revert to the binomial forms for these names.

## Leptodeira annulata septentrionalis (Kennicott)

Dipsas septentrionalis Kennicott, in Baird, Rep. U. S. Mex. Bound. Surv., vol. 2, 1859, R-pt., p. 16, pl. 8, fig. 1 (type locality, Brownsville, Texas [restricted]).
A specimen, No. 5380, from Luna Media, has 29 quadrangular bands covering some scales of the first row. There are 15 tail bands. Anteriorly the ventral pigmentation is confined to the outer edges of the ventrals, but on the posterior fourth of the body it pushes more toward the middle of the scales. The subcaudals are sprinkled rather thickly with gray pigment. The light bands between black bands dorsally, rarely are as wide as two whole scale lengths. These bands widen a little laterally, and have but little pigment. The nuchal band has some pigment and a median, narrow, elongate, black spot.

## Leptodeira annulata taylori Smith

Leptodeira annulata taylori Smith, Proc. Biol. Soc. Washington, vol. 54, 1941, p. 115 (type locality, Orizaba, Veracruz).

One specimen of this form (No. 4872) was taken at La Joya, 5 km . W of Aquismon, 2500 ft ., J. Graber, collector. The specimen gives the following scale data: ventrals, 194; anal divided, subcaudals, $84+1$; two preoculars, two postoculars; upper labials, $8-8$; lower labials 10-10; temporals, $1+3(1+2)$; scale formula, 21, 21, $23,17,16$. Thirty-four dark spots on body, 21 on tail; bands on body not reaching to ventrals; no light lines bordering head scales; venter with some scattered pigment usually bordering posterior edge of each ventral; heavily pigmented under tail.

## Leptodeira maculata (Hallowell)

Megalops maculatus Hallowell, Proc. Acad. Nat. Sci. Philadelphia, vol. 12, 1860 (1861), p. 468, (type locality, 5 mi . E Jalapa, [restricted]).
One specimen (No. 4201) is from Nacimiento del Coy, collected April 27, 1951, by L. Guerrero.

The ground color is dark brown, not strongly contrasted with the black blotches except on the median dorsal line, where one or more scales between spots may be entirely lacking in pigment.

There are approximately 27 dorsal blotches, none reaching the ventrals laterally, and 12 on the tail. Some of the blotches are confluent dorsally, with a complete fusion of two on one side and a separation on the other. The gray-white borders of the posterior head scales (parietals, supraoculars and frontal) are evident. The venter is immaculate. A second specimen (No. 4873 of) taken at Rancho Sabinal, 200 ft . elev., Nov. 10, 1951, by R. Graber, has the following characters: upper labials, $8-8$; lower labials, $10-10$; ventrals, 174; anal divided; subcaudals, $54+1$; scale formula, 23,23 , $23,19,19$. Color above dark brown with 26 black body bands and about 8 caudal bands, separated by orange-tan areas; ventrally orange-white on body and tail; some pigment spots on outer edges of certain subcaudals. A few of the blotches are confluent. Head scales partly edged with white, outer edge of parietals strongly so. Dark blotches reach to the first scale row.
A specimen, No. 5384, from El Salto, has 25 bands on body and eleven on the tail; the light neck-band is narrow, two to three scales wide, the borders parallel. The venter is immaculate. The head scales are faintly outlined with lighter color.

## Coniophanes imperialis imperialis (Kennicott)

Taeniophis imperialis Kennicott, in Baird, Rep. U. S. Mex. Bound. Surv., vol. 2, 1859, Rept., p. 23, pl. 19, fig. 1 (type locality, Tamaulipas).
No. 5386, from Nacimiento del Coy was collected July 16, 1952.
The characteristics of the subspecies imperialis are clearly defined, especially in the details of color and markings. The ventrals are 135. The tail is missing. The subspecies is known from Texas, southward, along the eastern lowlands, to Jalapa, where it seems to intergrade with C. imperialis clavatus (Peters).

## Coniophanes fissidens proterops Cope

C[oniophanes] proterops Cope, Proc. Acad. Nat. Sci. Philadelphia, vol. 12, 1860, p. 249 (type locality, vicinity of Jalapa, Veracruz).
A specimen from El Salto (No. 5385), collected by Fugler is somewhat atypical. The head is dark gray, the labials light bordered above by a narrow cream line which in turn is bordered with black above, that extends to back level of the head. A gray median stripe covers three whole scale rows and edges of adjoining scales. The median row has a series of black dots visible to near end of body. The scales on sides of body are lighter, without dark or light stripes. Supra- and infralabials finely punctate with black, a distinct row of diminutive dots on the outer edges of ventrals, with other equally large flecks scattered sparsely on venter, but
growing less, posteriorly. There is some trace of a light lateral caudal line darker bordered above and below. The subcaudal area is immaculate. The supralabials, 7; infralabials, 8; ventrals, 129; subcaudals, $74+1$.

## Crotalus triseriatus triscriatus (Wagler)

Urosophis triscriatus Wagler, Natürliches System der Amphibien, 1830, p. 176, (type locality, Ålvarez, San Luis Potosí [restricted]).
The following characters obtain in No. 4882, Ahuacatlan, 5800 ft . elev.: ventrals 155 , subcaudals 29 (1st divided, 2nd-19th single, 20th-27th divided, 28 th single, 29 th divided). Scale formula: 26 , $23,23,19,17$; upper labials, $12-12$, two touching the subocular; lower labials, 11-11. Anterior nasal near twice size of second; apical pits discernible on many scales. "Olive with red-brown markings; belly orange; iris yellow-orange"; no line present from eye to angle of mouth.

## Crotalus triseriatus (melanistic form)

Two specimens are in the collection. The first, No. 4881, from 6 mi . W of Ahuacatlan, Aug. 3, 1951, has the following characters: ventrals 199, subcaudals 24 (1st divided, 2 nd to 20 th single, 21 st to 24th divided), scale formula: 26(27), 23, 23, 19, 19; supralabials 12-12; infralabials 11-12; anterior nasal only about one and onehalf times posterior; four rattles and a button present. Dorsally blackish with brown spots; orange near tip of tail; ventrally almost uniformly steel gray; white markings near head.

The second specimen, No. 4884, 6 mi . W Ahuacatlan, October 5, 1951, 5400 ft . elev., R. Graber, coll., has the following characters: 154 ventrals, 22 subcaudals (1st divided, 2nd to 13th undivided, 14th to 21st divided); scale formula: $27,23,23,19,17$ (18).

Both snakes contained partly digested specimens of Sceloporus (not identified).

## Crotalus atrox Baird and Girard

Crotalus atrox Baird and Girard, Catalogue of North American Reptiles, 1853, pp. 5-6 (type locality, Indianola, Calhoun Co., Texas).
This species is represented by a single small specimen, No. 4883, taken at Pozo del Carmen, 5600 ft . elevation, Aug. 30, 1951, by Jean Graber. The specimen has 181 ventrals and 20 subcaudals, the terminal one divided. A button represents the rattle. The scale formula is: 23, 23, 23, 23. Blackish bands on body number 32 . There are four on the tail.

## Loricata

## Crocodylus moreletii Duméril and Bibron

Crocodilus moreletii Duméril and Bibron, Catalogue methodique de la collection des reptiles, 1851, p. 28 (type locality, Lake Petén, Guatemala).
Three specimens, Nos. 4371-4373 from Tanchachin, near Aquismón, R. T. Gregg, collector, are in the collection. The three specimens measure from $482-515 \mathrm{~mm}$. in total length; snout-to-vent length (greatest) 245 mm . This is the first published record for the State.

## COLLECTING LOCALITIES

The map below gives most of the collecting localities mentioned in the text.


Fig. 1. Map of San Luis Potosí showing collection localities.

| Amoles | $22^{\circ} 49^{\prime} \mathrm{N} ; 100^{\circ} 20^{\prime} \mathrm{W}$ | Platanito | $22^{\circ} 30^{\prime} \mathrm{N} ; 99^{\circ} 26^{\prime} \mathrm{W}$ |
| :---: | :---: | :---: | :---: |
| Aquismon | $21^{\circ} 38^{\prime} \mathrm{N} ; 99^{\circ} 00^{\prime} \mathrm{W}$ | Poso del Carmen | $22^{\circ} 19^{\prime} \mathrm{N} ; 100^{\circ} 37^{\prime} \mathrm{W}$ |
| Axtla | $21^{\circ} 27^{\prime} \mathrm{N} ; 98^{\circ} 52^{\prime} \mathrm{W}$ | Presa Gonzales |  |
| Bledos | $21^{\circ} 49^{\prime} \mathrm{N} ; 101^{\circ} 07^{\prime} \mathrm{W}$ | Santos | $22^{\circ} 06{ }^{\prime} \mathrm{N} ; 101^{\circ} 06^{\prime} \mathrm{W}$ |
| Cañada Grande | $21^{\circ} 58^{\prime} \mathrm{N} ; 100^{\circ} 23^{\prime} \mathrm{W}$ | Sabinal | $21^{\circ} 45^{\prime} \mathrm{N}$; $99^{\circ} 06^{\prime} \mathrm{W}$ |
| El Nacimiento del |  | Santiago | $21^{\circ} 53^{\prime} \mathrm{N} ; 101^{\circ} 15^{\prime} \mathrm{W}$ |
| Coy | $21^{\circ} 47^{\prime} \mathrm{N} ; 98^{\circ} 58^{\prime} \mathrm{W}$ | Sierra San Miguel | $22^{\circ} 00^{\prime} \mathrm{N} ; 101^{\circ} 05^{\prime} \mathrm{W}$ |
| Huisache | $22^{\circ} 55^{\prime} \mathrm{N} ; 100^{\circ} 23^{\prime} \mathrm{W}$ | Tanchachin | $21^{\circ} 50^{\prime} \mathrm{N} ; 99^{\circ} 09^{\prime} \mathrm{W}$ |
| Jesús Maria | $21^{\circ} 56^{\prime} \mathrm{N} ; 100^{\circ} 54^{\prime} \mathrm{W}$ | Ventilla | $21^{\circ} 47^{\prime} \mathrm{N} ; 101^{\circ} 02^{\prime} \mathrm{W}$ |
| Matehuala | $23^{\circ} 39^{\prime} \mathrm{N} ; 100^{\circ} 38^{\prime} \mathrm{W}$ | Villar | $22^{\circ} 32^{\prime} \mathrm{N} ; 100^{\circ} 28^{\prime} \mathrm{W}$ |
| Micos | $22^{\circ} 08^{\prime} \mathrm{N} ; 99^{\circ} 10^{\prime} \mathrm{W}$ |  |  |

The following localities visited by Mr. Charles Fugler are not on the map.
Presa Prudentia. A reservoir about 4 miles $N$ of Bledos on the road to Bledos. La Luna Media or Media Luna. A large, spring-fed area of deep lagunes, with intertwining creeks, approximately 8 miles SE of Río Verde.
38 Km . SW of Río Verde. This locality is in the mountains to the SW of Rio Verde. The distance is approximate. While in the area, we stayed at a logging camp. I can best characterize the region as one of magnolias and pines.
El Abra. A small village on the Valles-Tampico highway.
Rio Claro. 6 kms . E of Tamazunchale.
San Felipe. 1 mile W. A small village on the Valles-Tampico highway.


[^0]:    * Three other papers based on previous collections have been published as follows:

    A preliminary account of the herpetology of the State of San Luis Potosí, Mexico, Univ. Kansas Sci. Bull., vol. 33, pt. 1, Apr. 20, 1949, pp. 169-215

    Second contribution to the herpetology of San Luis Potosí, Univ. Kansas Sci. Bull., vol. 33. pt. 2, Mar. 1950, pp. 441-457, pl. 4-9, map.

    Third contribution to th- herpetology of San Luis Potosí, Univ. Kansas Sci. Bull., vol. 34, pt. 2, Feb. 15, 1952, pp. 793-815, map.

[^1]:    $\ddagger$ Not including specimens being studied by Dr. Hobart M. Smith.
    ** Change in nomenclature of a previously reported form.

    * First state record.

[^2]:    * First state record.
    ** Change in nomenclature of a previously reported form.
    *** Recently described forms.

[^3]:    * Univ. Kansas Sci. Bull., vol. 34, pt. 2 Feb. 15, 1952.

[^4]:    * Taylor, Univ. Kansas Sci. Bull., vol. 34, pt. 2, Feb. 15, 1952, p. 805.

[^5]:    * The data in the key serve as a description and prevent this name from being nomen nudum in this publication.

[^6]:    * Yarrow. U. S. Nat. Mus. Bull., 24, 1884, p. 46.
    ** Smith and Taylor. U. S. Nat. Mus. Bull. 199, 1950, p. 194.

[^7]:    * The front of the head has been injured and certain characters are obscured.

[^8]:    * Wiegmann, Herpetologia Mexicana, pl. 9.

[^9]:    * In Taylor, Univ. Kan. Sci. Bull., vol. 33, pt. 1, Apr. 20, 1949, pp. 171, 194, this specific name is incorrectly spelled multitorques.

[^10]:    ${ }^{*}$ For use of this name fide Dowling, Occ. P. Mus. Zool. U. Mich. no. 541, Oct. 10, 1951, p. 8 .

[^11]:    * U. S. Nat. Mus. Bull., 175, 1940, pp. 25-47.

